Patent Claims

1. A temperature control system in a thermal device equipped with a temperature sensor, resistance heating elements and a motor-driven cooling gas blower, both of the latter connected through contactors to the output of a frequency converter supplied from electrical supply network through a disconnecting device, with temperature progress in the thermal device programmed on a temperature controller which controls the frequency converter, **unique in that** the output of the frequency converter (F) is simultaneously connected through contactor (SG) to at least one heating system incorporating resistance heating elements, and through contactor (SD) to at least one cooling system with blower 3-phases induction motor (MD), the contactors (SG and SD) being controlled by temperature controller (RT).

2. Temperature control system as per claim 1, **unique in that** between the contactor (SG) of the heating system and the resistance heating elements (R) there is a transformer (TR).

3. Temperature control system as per claim 1, **unique in that** between the contactor (SD) of the blower and the blower motor (MD) there is a transformer (TRD).

4. Temperature control system as per claim 1, **unique in that** it is most advantageous to have the rated current of the heating and cooling systems maintain the ratio of 0.33 – 3.

5. Temperature control system as per claim 1, **unique in that** it is most advantageous to have the rated voltage of the heating and cooling systems maintain the ratio of 0.33 – 3.